

## **DETAILED ACTION**

### ***Acknowledgements***

This office action is in response to Applicant's communication filed on 8/10/2009. Claims 1, 8, 13-14, 17, 20 and 22-24 have been amended. Claims 4, 7, 11-12 and 18 have been cancelled. As such, claims 1-3, 5-6, 8-10, 13-17 and 19-24 are pending in the application.

### ***Claim Objections***

Claims 20 and 23 are objected to under 37 CFR 1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim. The dependent claims 20 and 23 are directed towards a signal-bearing medium tangibly embodying a program of machine-readable instructions executed by a digital processing apparatus to perform a method according to claims 17 and 24 respectively. As per the Infringement Test (see MPEP § 608.01(n), "Infringement Test" for dependent claims), a proper dependent claim shall include every limitation of the claim from which it depends or in other words that it shall not conceivably be infringed by anything which would not also infringe the basic claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 20 and 23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 20 and 23 are directed towards a signal-bearing medium which is a non-statutory subject matter. As per MPEP § 2106.02, If the "acts" of a claimed process manipulate only numbers, abstract concepts or ideas, or signals representing any of the foregoing, the acts are not being applied to appropriate subject matter. *Gottschalk v. Benson*, 409 U.S. 63, 71-72, 175 USPQ 673, 676 (1972).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5, 6, 8-10, 13 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ausubel et al., US Patent Application No. 2004/0054551 in view of Hambrecht, US Patent No. 6,629,082 in view of Smith et al. US Pat. App. No. 2002/0032621. Ausubel discloses an interactive bid evaluation system for a combinatorial auction, comprising:

a display for scaling a plurality of bids and items, on a display window (Fig. 2-3, 5a, [0128], auction servers are initialized with information such as items in the auction, minimum opening bids etc.);

a processor coupled to said display (Abstract, Fig. 2-3);

a mechanism for enabling a user to interactively generate an ad hoc solution by using visual operations, and for comparing the ad hoc solution with an optimal solution generated by said processor ([0129]-[0131], computer calculates the provisionally-winning bids and provisional revenue represents an ad hoc solution; compare the current provisional revenues with a function of the provisional revenue obtained in previous iteration(s); provisional revenue obtained in previous iterations represents optimal solution); and

a real-time recommendation window for providing at least one recommendation on what action to take next in generating the ad hoc solution ([0013], feedback in real time; [0129]-[0133], computer determines whether the auction should continue).

Ausubel does not specifically disclose a dynamic mechanism for enabling a user to dynamically update auction parameters including any of items in the auction, bundle bids under consideration, and changing constraints and a reserve price. However, Hambrecht discloses this feature (col. 30, lines 53-64).

Therefore, it would have been obvious to a person having ordinary skills in the art at the time the invention was made to modify the disclosure of Ausubel to include the disclosure of Hambrecht. The motivation for combining these references would have been to update any of the auction parameters as well as change the status of the auction as illustrated by Hambrecht.

Ausubel and Hambrecht do not specifically disclose an iconic user interface including an analysis window which allows said scaling and any one of an item list window, a bid window, a constraint window, a result window, a result detail window, a

recommendation window, an item detail window, and a bid detail window interactively coupled to said analysis window.

However, Smith discloses an iconic user interface including an analysis window which allows said scaling and any one of an item list window, a bid window, a constraint window, a result window, a result detail window, a recommendation window, an item detail window, and a bid detail window interactively coupled to said analysis window ([0045]-[0050]).

Therefore, it would have been obvious to a person having ordinary skills in the art at the time the invention was made to modify the disclosure of Ausubel and Hambrecht to include the disclosure of Smith. The motivation for combining these references would have been to create real-time competitive interaction among participants in the auction as illustrated by Smith ([0045]).

Regarding claim 5, Ausubel discloses wherein said display displays supporting information including any of items, bids, constraints, analysis and results, and candidate optimal solutions on said display, to allow interactive selection of an optimal solution from the bid evaluation system ([0128]-[0133]),

Smith discloses supporting information providing a visualization of how the optimal solution satisfies a demand for each item and each constraint thereon (Abstract, [0018]).

Regarding claim 6, Ausubel discloses wherein said display comprises a user interface for presenting solutions and supporting information in an intuitively

understandable visual representation, and for providing visual operations on graphical entities of the visual representation ([0128]-[0133]).

Regarding claim 8, Ausubel discloses wherein the dynamic mechanism generated the ad hoc solution and optimal solution iteratively for exploratory analysis ([0128]-[0133]).

Regarding claim 9, Smith discloses wherein said display includes a mechanism for enabling a user to generate interactively an optimal solution for an auction after pre-assigning at least one bundle bid to a winning bid pool ([0046]-[0050]).

Regarding claim 10, Smith discloses a user input device coupled to said display, wherein said display includes a mechanism for enabling a user to enforce said at least one recommendation by using said user input device ([0046]-[0050]).

Regarding claim 13, Smith discloses wherein said analysis window displays a bundle demand and a set of submitted bundle bids,

wherein said item list window displays a list of all items the user desires to procure and a demanded amount for each item,

said item list window allowing the user to any of select and de-select at least one item that the user desires to any of include and exclude, respectively, in the analysis window, and

wherein, as the bundle demand in the analysis window is updated by the user's item selection operation in the item list window, the set of bundle bids displayed in the analysis window is updated ([0063]-[0072]).

Claims 22-24 are substantially similar to claim 1 and hence rejected on similar grounds.

Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ausubel in view of Hambrecht in view of Smith in view of Morrison, US Patent Application No. 2002/0075285. Ausubel, Hambrecht and Smith disclose the invention as described above.

Regarding claim 2, Ausubel, Hambrecht and Smith fail to specifically disclose wherein said display scales viewable objects representing said bids and items, such that as a number of bids and items increases, a size of said viewable objects representing said bids and objects decreases. However, Morrison discloses this feature ([0006], enables the user to enlarge and/or reduce a desired region of an image on a display screen).

Therefore, it would have been obvious to a person having ordinary skills in the art at the time the invention was made to modify the disclosure of Ausubel, Hambrecht and Smith to include the disclosure of Morrison. The motivation for combining these references would have been to enable the user to enlarge and/or reduce a desired region of an image on a display screen as illustrated by Morrison ([0006]).

Regarding claim 3, Morrison discloses wherein each of said bids and items is displayed, regardless of a number of said bids and items ([0006]).

Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ausubel in view of Hambrecht in view of Smith and further in view of Official Notice. Ausubel, Hambrecht and Smith describe the invention as disclosed above.

Regarding claims 14-15, all fail to specifically disclose a pointing device, wherein said item detail window is openable from the item list window by using an operation of said pointing device, said item detail window for displaying information about a particular item, wherein said bid list window displays a list of all the submitted bundle bids and allows the user to any of select and de-select at least one bid that the user wants to any of include and exclude, respectively, in the analysis window, and wherein said bit detail window is operable from the bid list window by using an operation of said pointing device, and displays various information about a particular bid, including a bid thumbnail image, a supplier information, and a product information bundles in a bid and wherein the constraint window displays a list of constraints applicable to the current auction setting presented in the analysis window, and enables the user to dynamically update values of constraints and apply the values to the bid evaluation in the analysis window, wherein the result window groups and displays, in a hierarchical tree structure, solutions for various combinatorial auction bid evaluation problems set up in the analysis window, so as to classify different solutions hierarchically in the result window, wherein a new bid evaluation problem is created by changing the values in the item list window, the bid list window, and the constraint window, and wherein when a bid evaluation problem is determined in the analysis window, said bid evaluation problem is selectively added to the result window. Examiner recognizes these limitations to be old and well known. Examiner, therefore, takes Official Notice in this regard.

Therefore, it would have been obvious to a person having ordinary skills in the art at the time the invention was made to modify the disclosure of Ausubel, Hambrecht and

Smith to include the disclosure of Official Notice. The motivation for combining these references would have been within the knowledge of a person having ordinary skills in the art.

Regarding claim 16, Smith discloses wherein the result detail window is operable from the result window by using said pointing device to present detailed information on a particular solution, wherein the recommendation window provides at least one recommendation for each iteration in generating an ad hoc solution for a combinatorial auction bid evaluation problem, to allow said user to directly enforce the recommendation in the recommendation window, and wherein if a predetermined supplier makes a bid, then said bid by said predetermined supplier is automatically selected ([0065]).

Claims 17 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ausubel in view of Morrison in view of Smith in view of Hambrecht.

Regarding claim 17, Ausubel discloses a method of interactive bid evaluation for a combinatorial auction on a display apparatus controlled by a processor, said method comprising:

scaling, as executed by the processor, a plurality of bids and items displayed on a display window (Fig. 2-3, 5a, [0128]); and

providing, as executed by the processor, a real-time recommendation window for providing at least one recommendation on what action to take next in generating an ad hoc solution ([0013], [0129]-[0133]);



displaying supporting information including any of items, bids, constraints, analysis, results, and optimal solutions on said displays, to allow interactive selection of an optimal solution from the bid evaluation system ([0128]-[0133]),

generating the ad hoc and optimal solutions iteratively for exploratory analysis ([0128]-[0133]).

Ausubel does not specifically disclose

scaling, as executed by the processor, viewable objects representing said bids and items such that as a number of said bids and items increases, a size of said viewable objects representing said bids and items decreases.

However, Morrison discloses this feature ([0006]).

Therefore, it would have been obvious to a person having ordinary skills in the art at the time the invention was made to modify the disclosure of Ausubel to include the disclosure of Morrison. The motivation for combining these references would have been to enable the user to enlarge and/or reduce a desired region of an image on a display screen as illustrated by Morrison ([0006]).

Ausubel and Morrison do not specifically disclose

said supporting information providing a visualization of how the optimal solution satisfies a demand for each item and each constraint thereon.

However, Smith discloses this feature (Abstract, [0018]).

Therefore, it would have been obvious to a person having ordinary skills in the art at the time the invention was made to modify the disclosure of Ausubel and Morrison to include the disclosure of Smith. The motivation for combining these references would

have been to allow the buyer to accurately evaluate the bids as illustrated by Smith (Abstract).

Ausubel, Morrison and Smith do not specifically disclose enabling, as executed by the processor, a user to dynamically update auction parameters including any of items in the auction, bundle bids under consideration, changing constraints, and a reserve price.

However, Hambrecht discloses this feature (col. 30, lines 53-64).

Therefore, it would have been obvious to a person having ordinary skills in the art at the time the invention was made to modify the disclosure of Ausubel, Morrison and Smith to include the disclosure of Hambrecht. The motivation for combining these references would have been to update any of the auction parameters as well as change the status of the auction as illustrated by Hambrecht.

Regarding claim 19, Ausubel discloses wherein each of said bids and items is displayed regardless of a number of said bids and items, said method further comprising: presenting solutions and supporting information in an intuitively understandable visual representation, and providing visual operations on graphical entities of the visual representation; interactively generating, by a user, an ad hoc solution by using visual operations, and comparing the solutions with a computer-generated optimal solution; and enforcing at least one recommendation by using said user input device ([0128]-[0133]).

Claims 20-21 are substantially similar to claim 17 and hence rejected on similar grounds.

***Response to Arguments***

Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **RAJESH KHATTAR** whose telephone number is (571)272-7981. The examiner can normally be reached on Flex schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Kramer can be reached on 571-272-6783. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James A. Kramer/  
Supervisory Patent Examiner, Art Unit 3693

/R. K./  
Examiner, Art Unit 3693